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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,936

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EXAMINER

GODENSCHWAGER, PETER F

ART UNIT

PAPER NUMBER

1767

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,936	<b>Applicant(s)</b> GREEN ET AL.	
	<b>Examiner</b> PETER F. GODENSCHWAGER	<b>Art Unit</b> 1767	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 13, 2010 has been entered.

Applicant's reply filed July 13, 2010 has been fully considered. Claims 1, 12, and 13 are amended; claims 18-25 are new; and claims 1 and 3-25 are pending.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites the limitation "the addition of an organic peroxide" in line three of the claim. There is insufficient antecedent basis for this limitation in the claim. Neither claim 13 nor claim 17 positively recite an addition of an organic peroxide. Therefore, it is not clear if

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such a step is meant to be recited, or if claim 17 is simply reciting the result of polymerization if an organic peroxide is added.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, 7-12, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Troutman et al. (US Pub. No. 2004/0002559).

Regarding Claims 1, 12, and 22: Troutman et al. teaches an intumescent coating composition that can be applied by brush, roller, or dipping (a liquid) comprising a UV-cured coating (curable to a solid state by free radical polymerization) (abstract, [0066], [0070]-[0071]). Troutman et al. teaches that the UV-cured coatings are described in US App. No. 09/794,710 (now US Pat. No. 6,376,584 to Galbo et al.), which is incorporated by reference. The UV-cured coatings disclosed by Galbo et al. are comprised of ethylenically unsaturated, polymerizable compounds (monomers) in a polymeric binder (solid thermoplastic resin/polymeric component) (33:40-55; 36:25-35). Troutman et al. further teaches the coating comprising a spumific agent such as ammonium polyphosphate (a gas source and an acid source) and a carbonific material (carbon source) ([0052], [0330]-[0331]).

Regarding Claims 3 and 4: Troutman et al. teaches the polymeric component as a (meth)acrylate copolymer (see Galbo et al. 36:35-40).

Regarding Claims 7 and 8: Troutman et al. teaches the monomeric component is methyl acrylate (see Galbo et al. 33:55-65).

Regarding Claim 9: Troutman et al. teaches the coating where the binder component is present in 0-60 wt%, teaching with sufficient specificity the claimed range of 20-60 % (Example 20, [0482]).

Claims 13-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Troutman et al. (US Pub. No. 2004/0002559).

Regarding Claims 13, 18, and 19: Troutman et al. teaches a method of curing a intumescent coating that can be applied by brush, roller, or dipping (a liquid) comprising a UV-cured coating (curable to a solid state by free radical polymerization) (abstract, [0066], [0070]-[0071]), comprising the step of adding a photoinitiator (initiator) ([0059]). Troutman et al. teaches that the UV-cured coatings are described in US App. No. 09/794,710 (now US Pat. No. 6,376,584 to Galbo et al.), which is incorporated by reference. The UV-cured coatings disclosed by Galbo et al. are comprised of ethylenically unsaturated, polymerizable compounds (monomers) in a polymeric binder (solid thermoplastic resin/polymeric component) (33:40-55; 36:25-35). Troutman et al. further teaches the coating comprising a spumific agent such as ammonium polyphosphate (a gas source and an acid source) and a carbonific material (carbon source) ([0052], [0330]-[0331]).

Regarding Claims 14 and 15: As the polymers and monomers disclosed by Troutman et al. are free radically curable, they would inherently be able to be cured by an organic peroxide.

Regarding Claims 16 and 17: The Examiner recognizes that all of the claimed physical properties are not positively taught by the reference, namely how long the composition takes to cure and the amount of volatile components that would be lost during an initiation by an organic peroxide. However, the reference teaches all of the claimed ingredients, in the claimed amounts, process steps, and process conditions. Therefore, the claimed physical properties would inherently be achieved by the method as claimed and disclosed. If it is the applicant's position that this would not be the case: (1) evidence would need to be presented to support applicant's position; and (2) it would be the Examiner's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients, in the claimed amounts, process steps, and/or process conditions.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troutman et al. (US Pub. No. 2004/0002559) in view of Pirig et al. (US Pat. No. 6,054,513).

Troutman et al. teaches the coating composition of claim 1 as set forth above.

Regarding Claim 5: Troutman et al. does not teach the coating composition where the polymeric component is as recited in claim 15. However, Pirig et al. teaches an intumescent coating composition using a styrene and acrylic esters (abstract, 2:40-60). Troutman et al. and Pirig et al. are analogous art because they are concerned with the same field of endeavor, namely polymeric, intumescent coating compositions for coating substrates. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the styrene and acrylic ester copolymers of Pirig et al. as the polymeric material in the coating system of Troutman et al. and would have been motivated to do so because they are disclosed as art recognized equivalents to binders such as copolymers based on acrylic esters (which are disclosed by Troutman et al. (see Galbo et al. 36:35-50 and MPEP 2144.06), therefore one of ordinary skill in the art would have a reasonable expectation of success in substituting the binder of Pirig et al. for the binder of Troutman et al.

Regarding Claim 23: Troutman et al. does not specify the wt% of acid source relative to the total of the intumescent ingredient. However, Pirig et al. teaches an intumescent coating

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composition wherein the ammonium phosphate (acid source) comprises 55 wt% of the intumescent ingredients (see Example 2, 3:50-65; 38 parts ammonium phosphate and 68 parts total intumescent material, ammonium phosphate, melamine phosphate, and dipentaerythritol). Troutman et al. and Pirig et al. are analogous art because they are concerned with the same field of endeavor, namely polymeric, intumescent coating compositions for coating substrates. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the wt% of acid source of Pirig et al. in the composition of Troutman et al. and would have been motivated to do so because it is disclosed by Pirig et al. to form an effective intumescent coating (5:40-50).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Troutman et al. (US Pub. No. 2004/0002559) in view of Fessler et al. (US Pat. No. 3,635,970).

Troutman et al. teaches the coating composition of claim 1 as set forth above.

Troutman et al. does not teach the coating composition where the polymeric component is as recited in claim 6. However, Fessler et al. teaches an intumescent coating composition comprising a vinyl toluene-butadiene resin (3:60-4:5; Example X, 7:5-20). Troutman et al. and Fessler et al. are analogous art because they are concerned with the same field of endeavor, namely polymeric, intumescent coating compositions for coating substrates. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the vinyl toluene-butadiene resin of Fessler et al. as the polymeric component in the coating system of Troutman et al. and would have been motivated to do so because it is disclosed by Fessler et al. as being a suitable binder, especially for use as an oil-based paint (7:5-20) therefore, one of



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ordinary skill in the art would have a reasonable expectation of success in employing such a binder in the coating system of Troutman et al.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troutman et al. (US Pub. No. 2004/0002559).

Troutman et al. teaches the coating composition of claim 1 as set forth above. Troutman further teaches that the polymeric component of the resin is present in 40-90 wt%, which would necessarily imply that the monomeric component is present in 10-60 wt% (see Galbo et al. 36:25-30).

Troutman et al. does not teach with sufficient specificity the claimed ranges of 10-50 wt% for the polymeric component and 30-90 wt% for the monomeric component. However, in the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists (see MPEP 2144.05). At the time of the invention, a person of ordinary skill in the art would have been motivated employ the polymeric or monomeric component in an amount within the claimed range, as such amounts are disclosed to be useful for forming intumescent coating compositions, therefore one would have a reasonable expectation of success in obtaining an effective intumescent coating composition using such amounts.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Troutman et al. (US Pub. No. 2004/0002559) in view of Pirig et al. (US Pat. No. 6,054,513).

Troutman et al. teaches the method of claim 13 as set forth above.

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Troutman et al. does not specify the wt% of acid source relative to the total of the intumescent ingredient. However, Pirig et al. teaches an intumescent coating composition wherein the ammonium phosphate (acid source) comprises 55 wt% of the intumescent ingredients (see Example 2, 3:50-65; 38 parts ammonium phosphate and 68 parts total intumescent material, ammonium phosphate, melamine phosphate, and dipentaerythritol).

Troutman et al. and Pirig et al. are analogous art because they are concerned with the same field of endeavor, namely polymeric, intumescent coating compositions for coating substrates. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the wt% of acid source of Pirig et al. in the method of Troutman et al. and would have been motivated to do so because it is disclosed by Pirig et al. to form an effective intumescent coating (5:40-50).

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Troutman et al. (US Pub. No. 2004/0002559) in view of Srail et al. (US Pat. No. 5,286,576).

Troutman et al. teaches the method of claim 13 as set forth above.

Troutman et al. does not teach the method where the acid source is coated with silane, melamine, or melamine formaldehyde. However, Srail et al. teaches using ammonium polyphosphate that is coated with melamine formaldehyde (4:34-45). Troutman et al. and Srail et al. are analogous art because they are concerned with the same field of endeavor, namely flame retardant polymeric compositions comprising ammonium polyphosphate. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the melamine formaldehyde coated ammonium phosphate of Srail et al. to replace the ammonium

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polyphosphate of Troutman et al. and would have been motivated to do so because Srail et al. teaches that such a coating on the ammonium phosphate prevents the ammonium phosphate from being leached out of the polymer by water or atmospheric moisture (4:34-45).

Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troutman et al. (US Pub. No. 2004/0002559) in view of Srail et al. (US Pat. No. 5,286,576).

Troutman et al. teaches the composition of claim 1 as set forth above.

Troutman et al. does not teach the composition where the acid source is coated with melamine formaldehyde. However, Srail et al. teaches using ammonium polyphosphate that is coated with melamine formaldehyde (4:34-45). Troutman et al. and Srail et al. are analogous art because they are concerned with the same field of endeavor, namely flame retardant polymeric compositions comprising ammonium polyphosphate. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use the melamine formaldehyde coated ammonium phosphate of Srail et al. to replace the ammonium polyphosphate of Troutman et al. and would have been motivated to do so because Srail et al. teaches that such a coating on the ammonium phosphate prevents the ammonium phosphate from being leached out of the polymer by water or atmospheric moisture (4:34-45).

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible

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harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3-8 and 12-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 3-18 and 20 of copending Application No. 11/722,347. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim the same liquid

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intumescent coating composition comprising the same polymeric components and the same monomeric components, same intumescent ingredients, and the same method of curing the composition. While 11/722,347 further comprises a silicate, the composition of the claims still fully encompasses the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1, 3-9 and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-20 of copending Application No. 11/722,348. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim the same liquid intumescent coating composition comprising the same polymeric components and the same monomeric components, and same intumescent ingredients. While 11/722,348 further comprises a reinforcement structure, the composition of the claims still fully encompasses the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1 and 3-25 have been considered and sufficiently responded to in the new grounds of rejection as set forth above.

*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER F. GODENSCHWAGER whose telephone number is (571)270-3302. The examiner can normally be reached on Monday-Friday 7:30-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter F. Godenschwager/  
Examiner, Art Unit 1767